Claims

1. An auto-writing system on monitor/screen (21), controlled by microprocessor characterized in that it provides:
- the replacement of the writing alphanumeric keyboard, with an auto-writing device (5, 1a, MK, MKP, MPS, MC) including a movement sensor according to the X,Y coordinates with respect to a surface, associated/able to said microprocessor that controls said monitor/screen (4,21,5a), in which:
- with vertical or predominantly vertical movements according to the "Y" ordinates, allow changing in scrolling-way the alphanumeric characters of interest, so that, when the movement stops or changes direction, the desired alphanumeric character remains on the screen;
- with horizontal or predominantly horizontal movement, according to the abscissas "X" axis, in the sense of advancing writing, at least the addition of said alphanumeric characters is operated.

2. An auto-writing system according to claim 1., characterized in that in the prevailing movement according to the X-abscissas axis:
- in the advancing direction alphanumeric characters and punctuation is added and
- in the opposite direction, that is backwards, cancellation is made.

3. An auto-writing system according to any of the preceding claims, characterized in that it comprises automatic conversion means of the numerical value of "numtochar" ordinate into opportune character/punctuation, in relation to the already written prior characters/punctuation.

4. An auto-writing system according to any of preceding claims, characterized in that it provides at least one integrated dictionary that as one writes the characters of a word, compares what written with the prefixes of the words existing in said dictionary and, when the word or words identified

suggests sequentially the limited options allowed by said dictionary.

5. An auto-writing system according to any of preceding claims, characterized in that said movement sensor small panel is a "keypad" pseudo-writer means (5, 1a, MK, MKP, MPS), that is a small panel sensor of the movement of the rested finger and made scroll over it in a rectilinear or almost rectilinear manner by segments.

6. An auto-writing system according to preceding claim, characterized in that said "keypad" pseudo-writer means movement sensor small panel (5, 1a, MK, MKP, MPS), is structured and sized for being housed in the palm of the hand and operated by the same hand-thumb movement.

7. An auto-writing system according to any of claims from 1 to 5, characterized in that said movement sensor is essentially a mouse (MC-MK).

8. An auto-writing system according to preceding claims, characterized in that the movement parameters substantially fall within the scheme of a x-y coordinates diagram where values lioàits of side excursion -1, +1 +2, +3 can vary according to wanted tolerances (Fig.4, 5).

9. An auto-writing system according to any of preceding claims, characterized in that it works with to-and-fro movements for more or less continuous rectilinear segments upwards and downwards, forwards and backwards substantially forming a chart of the type with upwards and downwards oscillations whose direction variations correspond to determined characters.

10 A cellular-phone structured with the system as in any of the preceding claims 1-6 and 8-9 equipped with a thumb movement sensor small panel (5) instead of a writing pad.

11 A cellular-phone according to the preceding claim characterized in having at least one writing option control means on the side on the thumb's opposite side (1, MC), to be operated by using the fore finger or the middle finger.

12 A palmar computer characterized in having a thumb's movements, sensor small panel (5) and in being integrated with auto-writing system according to at least one of the preceding claims.

13 A telephone structured with the self-writing system as in any of the preceding claims 1-6 and 8-9 endowed with a finger movements sensor small panel (5) instead of the writing key-pad or combinatorial disc.

14. An operatively structured computer including the auto-writing system according to any of preceding claims.

15 A sensor small panel (MKP) linkable to a monitor/screen or television integrated with self-writing system, according to any of preceding claims 1-6 and 8-9.

16. An auto-writing hardware endowed with a system according to claim 1, with processor means an memory means and means for sending control signals to a screen/monitor and relative X,Y movement sensitive means for detection a body in motion on it or vice-versa, having the size for being contained in the palm of one's hand (M), characterized in that the aforementioned means are associable with storage means at least of the last two written characters in the case of letters and limiting means of the variety of letters to write in relation to the previously already written characters.

17. An auto-writer using and auto-writing system according to any of previous claims, characterized in that it comprises a panel sensitive to the finger sliding (1a), at least a hand's thumb (M) that holds the device, that is shaped to have

said optional controls at least on a side opposite (2a) to the palm of the hand that holds it (M), to be controlled by the fingers, forefinger and/or middle finger and/or annular finger, while the thumb is intended to slide on said panel (1a), upwards and downwards to vary the characters (X) and forwards and backwards (Y) for adding or for canceling them.

18. An auto-writer according to the preceding claim, characterized in that it comprises controls with option and/or control push-buttons (3a), on and/or under said sensitive panel, to be able to be operated by said thumb.

19. An auto-writer according to the features of preceding claims, characterized in that it comprises at least one microprocessor, writing storage means and management means of the same, with displayer of what is written and means of sending and receiving signals to a stand-alone monitor/screen apparatus.

20. An auto-writing system associated to microprocessor and to at least one movement sensor means, at least for sending control signals to a monitor/screen showing a moving pointer, and detection means of said moving pointer respect to the orthogonal co-ordinates X,Y of said monitor/screen, on which to write, according to any of preceding claims, wherein:

- said movement sensor means has the size to be contained in one hand's palm;
- and said system includes at least:
- means to detect the relative sliding movement on sensor key-pad means into a virtual pointer in displacement on said monitor/screen in the writing area, in order that:
- with prevailing movement according to the horizontal abscissas "X";
- characters are added if the displacement lies in the direction of the addition to the writing and
- characters are inversely cancelled;

- with prevailing movement according to the vertical ordinates "Y" the characters are made vary in an increasing manner if downwards and in a decreasing manner if upwards;
- option means to write alternatively at least:
- letters: capital or small ones, vowels and consonants, and punctuation / numbers;
- control means to activate at least two successive dots of the sliding movement in association to the relative position on said co-ordinates "X1,Y1; X2,Y2" to decide if to vary the written character/punctuation or to add one or to cancel it;
- control means to bring up to date continuously the position of said pointer on the screen in order to feel its relative dynamic movement;
- and in which in the case of letters the aforementioned means are associable to:
- memorizing means of the characters already written, and
- comparison means of the characters sequence **1** to **n** of what is already written at least of the last word with the words of a dictionary in memory **M,** characterized in that it further provides:
- to select the only words of the dictionary **M** that begin exactly with the characters from **1** to **n** of what is already written;
- to memorize this group of words **M1** generally minor than the former **M**;
- and to memorize the not repetitive sequence of the characters **n+1** of this reduced group of words **M1**, for automatically during said movement of said sensor means according to the ordinate "Y", to write sequentially, one or the other of these letters as reduced variables with respect to the entire alphabet by selection with said movement "Y";
- to repeat the process with addition of letters by means of said movement "X" and respective selection of the new reduced set "**M2**" ... "**Mn**" until the reducing action of the alternative dictionary words **Mn** is identified with only one alternative for the automatic completion of the word in writing.

21. A system according to claim 20, characterized in that in relation to what is written at least concerning the word in writing progress and at least the former word, the automatic completion of the word in writing progress or at least the limitation of the subsequent possible options is carried out depending on both.

22. A system according to claim 21, and/or 22 characterized in that said option means are push-buttons placed on and/or under said sensible panel, in order to be able to be operated by the same hand that operates said movement sensor.

23. System according to claim 20 and any of the claims 21, 22, characterized in that said option means are direction dynamic variations of said movement sensor.

24. System according to claim 20 and any of the claims 21, to 23, characterized in that said option means provide the activation of means for the reduction of the variables to write in sub-groups.

25. A system according to claim 24, characterized in that said sub-groups are at least vowels and consonants.

26. A system according to claim 20 and any of the claims from 21, 23, characterized in that said option means include the activation or not of the cancellation.

27. A system according to claim 20 and any of the claims from 21, to 26, characterized in that said option means include the activation or not of the starting of word adding with contemporaneously two characters, alternated with the one character continuous addition.

28. A system according to claim 20 and any of the preceding claims from 21, characterized in that the word beginning is allowed with alternative choice between variables of two characters selected in a sensor panel position, to then being inserted in the variability process driven by the processor.

29. A system according to claim 20 and any of the preceding claims from 21, characterized in that the system is provided to propose the beginning of the most plausible letters and the completion only of the speech/phonetic-most-plausible words in function of the words already written stored in respective dictionary divided by prefixes of at least two letters.

30. A system according to previous claims, characterized in that it provides a visualized vertical band DX in correspondence with the letter to modify for visual controlling of the scrolling action.

31. A system according to any of the preceding claims, characterized in that it provides the division into different groups of the characters to scroll by mouse-up and mouse-down option.